WDNR's Preferred Options for Revising NR 720
Draft Version for Discussion Purposes
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Background

The Remediation and Redevelopment (RR) Program promulgated ch. NR 720 – Soil Cleanup Standards on April 1, 1995. Even with promulgation of a final rule, it was envisioned that further changes/additions were necessary and in 1998 the RR Program began an effort to revise ch. NR 720. One of the primary goals of that endeavor was to develop additional cleanup standards for Table 1 (protection of groundwater) and Table 2 (direct contact). Ultimately, due to staff reductions we postponed this effort and it has not progressed due to lack of resources and other competing priorities.

However, over the last several years a number of issues have been identified that require resolution in order to ensure consistent implementation of this rule and as a result the RR Program has determined that revisions to the rule need to proceed. The issues being considered for revisions were discussed with the external Technical Focus Group on February 14, 2005. In general, the Focus Group felt that the major items requiring resolution had been identified. They also provided some initial feedback on potential options for addressing several of the issues.

Over the last 6 months, the Remediation and Redevelopment Program evaluated the potential options and discussed the various alternatives with key program staff and managers. Based on these discussions the summary below provides our initial recommendations for how we would like to proceed with revisions to NR 720. Some of the proposed changes represent technical issues while others tend to be more policy related. Because of the wide range of issues, this paper will be shared with both the NR 700 Technical Focus Group as well as members of the Brownfields Study Group. Based on feedback from the external advisory groups we will determine how to proceed with the overall rule revisions.

Recommendations on how to Proceed with NR 720 Rule Revisions

This documents identifies the RR Program's recommended approach for addressing the major issues that have been identified. Many of the issues identified in this paper are interrelated and a recommended approach for one issue may have effected the options available for another.

Issue A – Use of the Table Values in NR 720.

One issue that has been frequently identified is whether Tables 1 and 2 in NR 720 should be expanded to include additional compounds or removed from the rule altogether and replaced with the process for calculating site specific values. Related issues include whether to allow Residual Contaminant Levels (RCL's) for the soil to groundwater

pathway to be calculated using Enforcement Standards rather than PALs. Also, Table 2 is not consistent in that the non-industrial values have been reduced by 80% with the assumption that there are 4 other contaminants of concern present while the industrial values have not been similarly reduced. Finally, the issue has been raised whether the land use options should be expanded to also include more than 2 categories.

WDNR's recommended approach is as follows:

1. Tables 1 and 2 would be removed from the rule but the process for calculating site specific numbers would be codified. Generic standards could be made available through our web site as needed.
2. Change the methodology for calculating soil RCL's for the groundwater pathway based on compliance with the Enforcement Standard instead of the PAL.
3. Modify the process for calculating non-industrial direct contact numbers such that the PAL concept is no longer used, but retain the ability to evaluate synergistic effects of multiple contaminants.
4. Work with the Brownfields Study Group and others on the potential for evaluating more than just the industrial/non-industrial land use categories.

WDNR's reasons for recommending these approaches are:

- The majority of sites can not meet the generic standards, especially the protection of groundwater values in Table 1, and therefore the Table is rarely used.
- Much easier to update and keep current with on-going changes in toxicity levels.
- Only a limited number of compounds are currently included in the rule.
- Could provide a more comprehensive list of constituents.
- For most cleanups the Enforcement Standard is used as the cleanup goal and PAL exemptions for these sites are frequently issued.
- It would clarify the basis for both the industrial and non-industrial standards, regarding cumulative risk.
- This approach would allow all existing options for addressing contamination to continue.
- Would hopefully bring the cleanup standard more in-line with the actual land use at the site.

Issue B – Cleanup Standards for Lead.
The values for lead are no longer consistent with recommendations being provided by DHFS and EPA. Currently, multiple 'standards' exist creating confusion and inconsistent application.

WDNR's recommended approach is as follows:

1. Revise the cleanup standards for lead to be consistent with direction provided by DHFS and EPA.

WDNR's reason for this recommendation is:

- Using the same health-based values as DHFS and EPA will make it easier to explain and understand the standards being used for cleanup, resulting in more consistent implementation of the cleanup standard.

Issue C – Cleanup Standards for Arsenic

The current cleanup standard for Arsenic is typically well below background and is not consistent with the general direction supported by DHFS and DATCP.

WDNR's recommended approach is as follows:

1. Remove the Arsenic standard from the rule and replace it with a process/formula for determining a site specific arsenic standard,
2. Implement a study in conjunction with DHFS for determining statewide or regional background standard(s),
3. Work with DHFS to determine an appropriate health based standard,
4. Clarify how a statewide background would be utilized if the number(s) is(are) higher than the health based standard, and
5. In the interim use a site specific background value or implement a performance standard remedy to address the exposure pathway.

WDNR's reasons for recommending these approaches are:

- Would save time and reduce costs in evaluating site specific background for those sites with concentrations less than the established number.
- Would save time in addressing those sites with concentrations below the recommended health based levels.
- Developing standards that are consistent with health levels being used by DHFS should help with more consistent implementation on cleanups.

Issue D – Comparing Soil Cleanup Numbers to Sampling Results.

The issue is whether individual sampling results must be directly compared to the applicable soil cleanup numbers, or whether the sampling results should be represented using an average concentration over a specific exposure area, since the direct contact RCLs are based on a long-term exposure. This is an issue that has been discussed with the Technical Focus Group on several occasions.

WDNR's recommended approach is as follows:

1. Modifying the rule language in s. NR720.07(2)(b) to allow averaging on case-by-case basis, and
2. If an RP chooses to use an averaging approach it would require DNR approval up front.

The following information summarizes WDNR's reasons for recommending these approaches:

- Since the direct contact RCL's are based on a long-term exposure, this approach would be more technically sound than utilizing individual soil sampling results.
- This would be consistent with the approach allowed by our PAH guidance and would address the concerns expressed by the Technical Focus Workgroup.
- Addressing any "hot spots" can be done on a case-by-case basis using the approval process.

Issue E – Definition of Direct Contact.

A note in the rule indicates we plan to expand the definition of direct contact to include human exposures by inhalation of vapors and dermal absorption. While the rule requires all pathways to be considered, this revision would clarify that these two pathways need to be evaluated.

WDNR's recommended approach is as follows:

1. Expand the definition of direct contact to include human exposures by inhalation of vapors and dermal absorption.
2. We would also clarify that this doesn't change the way we handle sites, it just make it clear that we have the authority to address these pathways when appropriate.

WDNR's reasons for recommending these approaches are:

- This is consistent with the note in s. NR 720.03(4) which indicates we intend to make these changes.
- EPA recently questioned whether we are consistent with Federal TSCA rules without a direct reference to dermal exposure.
- The current definition does not account for 2 exposure pathways that should be evaluated for all sites.

Issue F – Use of GRO/DRO cleanup values in NR 720.

Several years ago, the RR Program discussed and decided to eliminate the standards for GRO/DRO. This was based on the need for specific compound analysis for cleanup, and the reduction in cost for the VOC scan. Initial promulgation of the GRO/DRO standard was based on cost considerations. Use of the GRO/DRO standards in recent years has been minimal for cleanups, but is still used at tank assessments. DRO may have some continued use, as compound specific analyses are not useful for discharges of fluids such as hydraulic oils.

WDNR's recommended approach is as follows:

1. Remove both GRO and DRO Soil Standards from NR 720. However, a note will be added to NR 716 which indicates that GRO/DRO can be used for screening purposes.
2. A Listserv announcement will be used to clarify how to handle those situations where a release occurs but compound specific constituents are not detected.

WDNR's reasons for recommending these approaches are:

- We already encourage the use of compound specific testing. Removal of the GRO/DRO soil standards would support that practice.
- One of the major reasons for utilizing GRO/DRO was to save costs, but compound specific testing is much less costly than it used to be.
- For DRO, there are some occasions where no compound specific constituents are detected but where considerable contamination is present (i.e. hydraulic oil).
- Allowing GRO/DRO for screening should help address the limited situations where compound specific analysis is problematic.